

AMENDMENTS TO THE CLAIMS

1. (currently amended) A tread (12) for a tire (10), the tread (12) having two or more circumferentially continuous grooves (20,22,24) and a continuous rib (30,32) between an adjacent pair of circumferentially continuous grooves (20,22); the tread (12) characterized by:
a plurality of circumferentially spaced hook-shaped semi-blind grooves (40), each of the hook-shaped semi-blind grooves (40) having an open portion (41) and a single blind ~~portion~~ portion (42) extending from the open ~~portion~~ portion (42) wherein a centerline (45) that bisects the open portion (41) and the blind portion (42) is inclined obliquely relative to an equatorial plane (EP) of the tread, the hook-shaped semi-blind grooves originating in one of the circumferentially extending grooves (20,22,24) and arranged in two rows (1,2,3,4) in the continuous rib (30,32), the second row (2) of hook-shaped semi-blind grooves (40) being similar in shape, but circumferentially offset from the hook-shaped semi-blind grooves in the first row (1), the rows (1, 2) of hook-shaped semi-blind grooves being laterally spaced from each other.
2. (previously presented) The tread of claim 1 wherein the hook-shaped semi-blind grooves (40) of the second row (2) are oppositely inclined but similarly oriented relative to the hook-shaped semi-blind grooves (40) of the first row (1), each hook-shaped semi-blind groove (40) of the second row (2) intersecting the other adjacent circumferentially continuous groove (20,22).
3. (previously presented) The tread (12) of claim 1 wherein the hook-shaped semi-blind grooves (40) of the second row (2) are similarly inclined but oppositely oriented relative the hook-shaped semi-blind grooves (40) of the first row (1), each hook-shaped semi-blind groove (40) of the second row (2) intersecting the other adjacent circumferentially continuous groove (20,22).
4. (original) The tread (12) of claim 1 further characterized by a sipe incision (50) extending from and oriented in the same direction as a blind portion (42) of the hook-shaped semi-blind grooves (40) of the first row (1) and second row (2).

5. (currently amended) ~~The A tread (12) of claim 1 for a tire (10), the tire having further~~
~~characterized by three circumferentially continuous grooves (20,22,24), and a second two~~
continuous ribs (30,32), each rib (30,32) being adjacent to and between a pair of the
circumferentially continuous grooves (20,22) or (22,24), the tread characterized by:

a plurality of circumferentially spaced hook-shaped semi-blind grooves (40), each of
the hook-shaped semi-blind grooves (40) having an open portion (41) and a single blind
portion (42) extending from the open portion (42) wherein a centerline (45) that bisects the
open portion (41) and the blind portion (42) is inclined obliquely relative to an equatorial
plane (EP) of the tread, the hook-shaped semi-blind grooves originating in one of the
circumferentially extending grooves (20,22,24) and arranged in two rows (1,2,3,4) in each
continuous rib (30,32), the second row of hook-shaped semi-blind grooves (40) in each rib
being similar in shape, but circumferentially offset from the hook-shaped semi-blind grooves
in the first row, the rows of hook-shaped semi-blind grooves being laterally spaced from each
other and wherein the hook-shaped semi-blind grooves (40) of one rib (30) are oppositely
oriented relative to the hook-shaped semi-blind groove (40) in the other rib (32).

6. (currently amended) The tread (12) of claim 5 wherein the hook-shaped semi-blind
grooves (40) in each rib (30,32) intersect ~~the a~~ common circumferentially continuous groove
(22) at a substantially circumferentially aligned location relative to the intersection of the
axially adjacent hook-shaped semi-blind grooves (40) of the other rib (30 or 32).

7. (currently amended) The tread (12) of claim 16 wherein the tread (12) has a pair of
lateral tread edges (14,16) defining the tread width (TW) and the distance halfway between
the lateral tread edges (14,16) defines the equatorial plane (EP) of the tread (12), and ~~the a~~
common circumferentially continuous groove (22) is centered at the equatorial plane (EP) of
the tread (12).

8. (original) The tread (12) of claim 1 wherein the centerline (45) of the hook-shaped
semi-blind grooves (40) is oriented at an angle θ in the range of 30° to 60° relative to the
equatorial plane (EP) of the tread (12).

9. (original) The tread (12) of claim 1 wherein the centerline (45) of the hook-shaped semi-blind grooves (40) is oriented at an angle θ about 45° relative to the equatorial plane (EP) of the tread (12).

10. (previously presented) The tread (12) of claim 1 further characterized by a pair of shoulder ribs (34,36), a first shoulder rib (34) being adjacent to and lying between a first lateral edge (14) and a circumferentially continuous groove (20) and a second shoulder rib (36) being adjacent to a second lateral edges (16) and between a circumferentially continuous groove (24) and the second lateral edge (16).

11. (previously presented) The tread (12) of claim 10 wherein each first and second shoulder rib (34,36) has a plurality of circumferentially spaced curved grooves (46) intersecting and adjacent the respective circumferentially continuous grooves (20,24) at locations in substantially linear alignment with the location of intersection of the hook-shaped semi-blind grooves (40) and the respective circumferentially continuous grooves (20,24).

12. (previously presented) The tread (12) of claim 11 wherein each curved groove (46) changes orientation by about 90 degrees as the groove (46) extends axially toward a lateral tread edge (14,16).

13. (currently amended) A The tread (12) for a tire (10) of claim 12, the tread (12) having two or more circumferentially continuous grooves (20,22,24) and a continuous rib (30,32) between an adjacent pair of circumferentially continuous grooves (20,22); the tread (12) characterized by:

a plurality of circumferentially spaced hook-shaped semi-blind grooves (40), each of the hook-shaped semi-blind grooves (40) having an open portion (41) and a single blind portion (42) extending from the open portion (42) wherein a centerline (45) that bisects the open portion (41) and the blind portion (42) is inclined obliquely relative to an equatorial plane (EP) of the tread, the hook-shaped semi-blind grooves originating in one of the circumferentially extending grooves (20,22,24) and arranged in two rows (1,2,3,4) in the continuous rib (30,32), the second row (2) of hook-shaped semi-blind grooves (40) being similar in shape, but circumferentially offset from the hook-shaped semi-blind grooves in the first row (1), the rows (1, 2) of hook-shaped semi-blind grooves being laterally spaced from

each other, and

a pair of shoulder ribs (34,36), a first shoulder rib (34) being adjacent to and lying between a first lateral edge (14) and a circumferentially continuous groove (20) and a second shoulder rib (36) being adjacent to a second lateral edges (16) and between a circumferentially continuous groove (24) and the second lateral edge (16), wherein each first and second shoulder rib (34,36) has a plurality of circumferentially spaced curved grooves (46) intersecting and adjacent the respective circumferentially continuous grooves (20,24) at locations in substantially linear alignment with the location of intersection of the hook-shaped semi-blind grooves (40) and the respective circumferentially continuous grooves (20,24), each curved groove (46) changing orientation by about 90 degrees as the groove (46) extends axially toward a lateral tread edge (14,16) and wherein each curved groove (46) has a full depth (D) at the lateral extremes and a reduced depth (d) therebetween the lateral extremes, the reduced depth (d) being about 50% of the full depth (D) or less.

14. (new) The tread of claim 5 wherein the hook-shaped semi-blind grooves (40) of the second row in each rib (30, 32) are oppositely inclined but similarly oriented relative to the hook-shaped semi-blind grooves (40) of the first row in each rib (30, 32).

15. (new) The tread (12) of claim 5 further characterized by a sipe incision (50) extending from and oriented in the same direction as the blind portion (42) of the hook-shaped semi-blind grooves (40).

16. (new) The tread (12) of claim 5 wherein the tread (12) has a pair of lateral tread edges (14,16) defining the tread width (TW) and the distance halfway between the lateral tread edges (14,16) defines the equatorial plane (EP) of the tread (12), and a common circumferentially continuous groove (22) is centered at the equatorial plane (EP) of the tread (12).

17. (new) The tread (12) of claim 5 wherein the centerline (45) of the hook-shaped semi-blind grooves (40) is oriented at an angle θ in the range of 30° to 60° relative to the equatorial plane (EP) of the tread (12).

18. (new) The tread (12) of claim 5 further characterized by a pair of shoulder ribs (34,36), a first shoulder rib (34) being adjacent to and lying between a first lateral edge (14) and a circumferentially continuous groove (20) and a second shoulder rib (36) being adjacent to a second lateral edges (16) and between a circumferentially continuous groove (24) and the second lateral edge (16), wherein each first and second shoulder rib (34,36) has a plurality of circumferentially spaced curved grooves (46) intersecting and adjacent the respective circumferentially continuous grooves (20,24) at locations in substantially linear alignment with the location of intersection of the hook-shaped semi-blind grooves (40) and the respective circumferentially continuous grooves (20,24).

19. (new) The tread (12) of claim 18 wherein each curved groove (46) has a full depth (D) at the lateral extremes and a reduced depth (d) therebetween the lateral extremes, the reduced depth (d) being about 50% of the full depth (D) or less.

20. (new) The tread (12) of claim 1 wherein the width of the hook-shaped semi-blind grooves (40) diminishes continuously from the open portion (41) adjacent the circumferentially extending grooves (20,22,24) toward the interior of the rib and the single blind portion (42).

The above amendments are supported by the original specification.